However, it should be noted that the conceptual underpinning of the "overdiagnosis" concept, as outlined by Reich, does not anchor to histological appearance but rather patient experience. In an analogous approach, Yankelevitz *et al* defined "overdiagnosis" as a phenomenon only present in lung cancers that double in size very slowly.[5] In applying this radiological definition, Yankelevitz *et al* were also able to conclude that "overdiagnosis" was rare in the Mayo Lung Project of chest *x* ray screening. Readers of Reich's article will appreciate the contradiction between Yankelevitz's conclusion and the robust findings from the Mayo Lung Project that documented a strong "overdiagnosis" effect resulting from chest *x* ray screening.[6]

IMPLICATIONS OF OVERDIAGNOSIS

If a sizable fraction of small growths found by CT screening pose limited threat to a person's health, Reich notes several important implications. For instance, determining the survival of patients with lung cancer diagnosed by screening will not be a valid way of estimating the benefits of CT detection, as many of the individuals so diagnosed would not have died of lung cancer anyway. In a recent analysis, my colleagues and I illustrated this disconnect.[7] We found that CT screening led to the discovery of more than three times as many lung cancers as would have been detected sporadically, suggesting a high rate of overdiagnosis. We also observed that the 4 year lung cancer specific survival rate among those with surgical resection was 94%. But we saw that the treatment of these cancers had no measurable impact on the rate of death from lung cancer. We concluded, as did an accompanying editorial, that improvements in survival did not necessarily correlate with a reduction in the lung cancer death rate, most likely because of the high rates of overdiagnosis occurring as a result of regular CT screening.[8]

Competing interests: None.

Thorax 2008;**63**:298–300. doi:10.1136/thx.2007.082990

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Lung alert

Industry funded studies for inhaled corticosteroids show greater safety

There is much debate about the effect on interpretation of results caused by the funding of studies by the pharmaceutical industry. This paper attempts to look for objective differences in results depending on the source of funding for studies on the adverse effects of inhaled corticosteroids.

A Medline search identified original articles on inhaled corticosteroids containing data on adverse effects between 1993 and 2002. The studies were analysed, blinded to funding source, by two authors who categorised side effects and authors' conclusions on drug safety. If there was a discrepancy a third author had a casting vote. Comparison was then made between pharmaceutical industry funded (PF) and non-pharmaceutical industry funded (non-PF) studies.

Non-PF studies were more likely to report significant adverse effects than PF studies. However, the results became non-significant when confounders such as study design were taken into account. However, PF studies were more likely than non-PF studies to conclude a drug was safe when a statistically significant adverse event had occurred in the study. The current authors contacted the authors of non-PF papers (where the authors had not stated a funding source) and, of those who responded, 8.1% reported pharmaceutical funding and were reallocated in the current study.

This study indicates that authors' conclusions may be influenced by funding sources and reiterates the importance of assessing funding and conflicts of interest when evaluating studies.

► Nieto A, Mazon A, Pamies R, *et al*. Adverse effects of inhaled corticosteroids in funded and nonfunded studies. *Arch Intern Med* 2007;**167**:2047–53

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